

## ABSTRACT OF THE DISCLOSURE

A water softening method and corresponding apparatus in which a determination is made whether a valid regeneration in an operational cycle has occurred, including the steps of providing a reference cell in a water tank and a spaced sensing cell in the water tank, sensing the impedance difference of the solution in the water tank between the reference cell and the sensor cell, if the impedance difference is one of a first, a second and a third state, determining whether a maximum rinse timer has timed out, if the maximum rinse timer has timed out, determining whether the maximum time limit was a preset time period, if the preset time period was reached, then triggering an alarm signal indicating that a valid regeneration did not occur.